

**IMPROVED DIAGNOSTIC MONITOR FOR USE WITH AN OPERATING  
SYSTEM AND METHODS THEREFOR**

**ABSTRACT**

A computer-implemented method for monitoring a computer system when the computer system executes a user application using a production operating system (OS) is disclosed. The method includes providing a diagnostic monitor, the diagnostic monitor being configured to be capable of executing even if the OS kernel fails to execute, the diagnostic monitor having a monitor trap arrangement. If a trap is encountered during execution of the user application, the method includes ascertaining using the diagnostic monitor whether the trap is to be handled by the OS kernel or the diagnostic monitor. If the trap is to be handled by the OS kernel, the method includes passing the trap to the OS kernel for handling.